









Plurilingual Creativity at work:
Theoretical and empirical arguments
for expanding framework for
research in the consequences of
acquisition and use of multiple
languages for creative behavior
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Discussant: **Todd I. Lubart, Ph.D.** (Université de Paris)

Список подтверждающих материалов

Вебинара "Полилингвальная креативность в действии: теоретические и эмпирические аргументы в пользу расширения рамок исследования о влиянии языковых практик на творческое поведение», 15.12.2021,

онлаин платформа Zoom

- 1. Программа вебинара (на русском языке)
- 2. Программа вебинара (на английском языке)
- 3. Презентация доцента департамента психологии НИУ ВШЭ Хармурина А.В «"Полилингвальная креативность в действии: теоретические и эмпирические аргументы в пользу расширения рамок исследования о влиянии языковых практик на творческое поведение"
- 4.Скриншот

Вебинар "Полилингвальная креативность в действии: теоретические и эмпирические аргументы в пользу расширения рамок исследования о влиянии языковых практик на творческое поведение"

Семинар состоится 15 декабря с 15.00 до 17.00 и будет посвящен вопросам креативности и творческого поведения, которые занимают важное место в программе исследований НЦМУ.

С докладом выступит Хархурин Анатолий Владимирович, Ph.D. в экспериментальной психологии, доцент факультета социальных наук НИУ ВШЭ, руководитель лаборатории Креативности и Мультилингвизма, стипендиат Fulbright и National Science Foundation (США) и Deutsche Forschungsgemeinschaft (Германия).

Доклад пройдет на английском языке.

Teма доклада: «Plurilingual Creativity at work: Theoretical and empirical arguments for expanding framework for research in the consequences of acquisition and use of multiple languages for creative behavior» («Полилингвальная креативность в действии: теоретические и эмпирические аргументы в пользу расширения рамок исследования о влиянии языковых практик на творческое поведение»).

Анатолий Владимирович представит результаты исследования факторов многоязычия и мультикультурности, которые помогают формировать личностные черты, способствующие развитию творческого потенциала. Также будет представлена парадигма Полилингвальной Креативности в образовании и программа «Ключи к полилингвальному, межкультурному и творческому образованию» (Plurilingual Intercultural Creative Keys; PICK).

Дискуссантом выступит Todd Lubart (Тодд Любарт), президент Международного общества изучения творчества и инноваций професор психологии Университета Парижа (Франция).

Аннотация (на русском и английском) - по ссылке.

Семинар пройдет в гибридном формате.



Research & Expertise to Make a Difference in Education & Beyond

Webinar "Plurilingual Creativity at work: Theoretical and empirical arguments for expanding framework for research in the consequences of acquisition and use of multiple languages for creative behavior"

This presentation focuses on the consequences of multilingual practice for creative behavior. Interest in the relationship between multilingualism and creativity was revived about 15 years ago. This relationship was formalized in the Multilingual Creative Cognition (MCC) framework and received extensive empirical support showing a positive effect of multilingualism on creative behavior. However, the MCC paradigm appears to take a rather narrow perspective on these two phenomena. Since it was developed within the traditional bi-/multilingualism and creative cognition frameworks, respectively, it focuses primarily on the cognitive mechanisms underlying creative capacity, which could benefit from an individual's multilingual practice. At the same time, scholarly reflection on learning and use of multiple languages has introduced a broader perspective with work in translanguaging, linguistic multi-competence and especially plurilingualism. The latter presents a holistic view, which considers languages as composing a single dynamic language repertoire, thus shifting the focus from the languages to the agency of the individual in the interaction of languages. Similarly, reflection on creativity has expanded towards a broader and more articulated conceptualization, with a number of models being developed that all stress the complex and multidimensional nature of creativity. Both shifts paved the way to a reconsideration of the relationship between linguistic and cultural diversity on one side and creativity on the other. In this talk, after briefly recapitulating the MCC paradigm, we present an argument supporting the need for a broader perspective on the relationship between multilingual and creative practices. We introduce some of the plurilingual and pluricultural factors, which may shape personality traits fostering creativity. Then, we provide empirical evidence from the studies investigating these factors. The presentation culminates with a discussion of the applications of the expanded Plurilingual Creativity paradigm in education and introduces Plurilingual Intercultural Creative Keys (PICK) program, which constitutes a unified teaching model blending language-learning and creativity-fostering instructions into school curriculum.

Plurilingual Creativity at Work

Theoretical and empirical arguments for expanding framework for research in the consequences of acquisition and use of multiple languages for creative behavior

Anatoliy V. Kharkhurin

Laboratory for Creativity & Multilingualism







Presentation Structure

- Multilingual Creative Cognition
- Plurilingual Creativity
- Plurilingual factors influencing creativity
- Empirical evidence
- Plurilingual Creative Education (PICK)

Multiple languages and creative practices: the start of a relationship

- Multilingual Creative Cognition (MCC) (Kharkhurin, 2015)
- A positive effect of bi-/multilingualism on creative cognition (see Kharkhurin, 2018, van Dijk, Kroesbergen, Blom, & Leseman, 2019, for an overview)

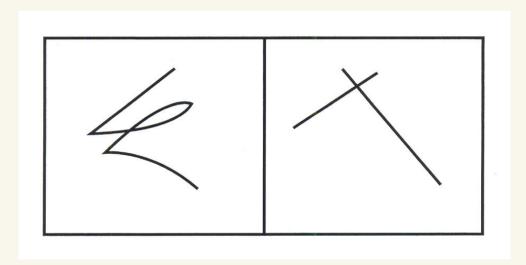
Creative Cognition

- An ability to initiate multiple cycles of divergent and convergent thinking (Guilford, 1967)
 - Convergent thinking
 - Extracting creative ideas from the pool of those generated during divergent thinking
 - Divergent thinking
 - · Generation of a multitude of often unrelated ideas
 - Abbreviated Torrance Test for Adults (ATTA, Goff & Torrance, 2002)
 - Properties
 - Fluency (the ability to rapidly produce a large number of ideas or solutions to a problem)
 - Flexibility (the capacity to consider a variety of approaches to a problem simultaneously)
 - Elaboration (the ability to think through the details of an idea and operationalize it)
 - Originality (the tendency to produce ideas different from those of most other people)
- This creates an active, attention-demanding process that allows generation of new, alternative solutions characterized by
 - novelty (original or unexpected)
 - utility (useful or meeting task constraints)
- Everyone has creative ability, but it's realized differently in different individuals (Ward, Smith, & Finke, 1999)

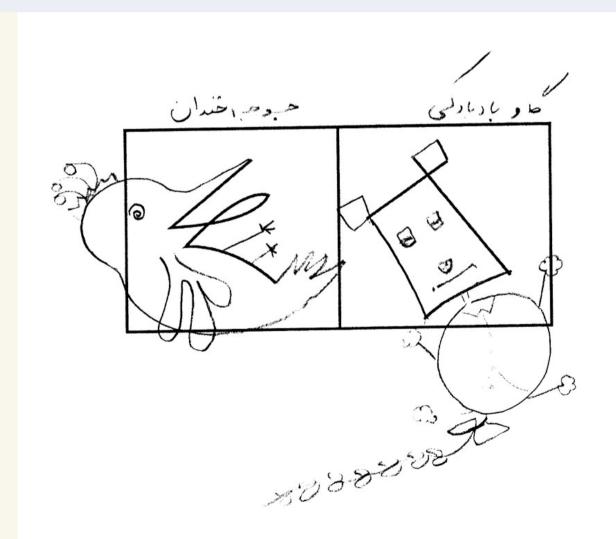
Just suppose you could walk on air or fly without being in an airplane or similar vehicle.

What problems might this create? List as many as you can.

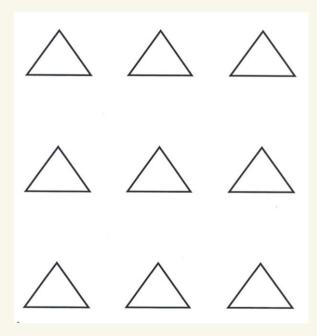
Use the incomplete figures below to make some pictures. Try to make your pictures unusual. Your pictures should communicate as interesting and as complete a story as possible.



Use the incomplete figures below to make some pictures. Try to make your pictures unusual. Your pictures should communicate as interesting and as complete a story as possible.



See how many objects or pictures you can make from the triangles below, just as you did with the incomplete figures.



See how many objects or pictures you can make from the triangles below, just as you did with the incomplete figures.



Multilingual Creative Cognition

- Speaking more than one language extends an individual's cognitive capacities (e.g., Adesope, Lavin, Thompson & Ungerleider, 2010; Barac, Bialystok, Castro & Sanchez, 2014; Bialystok, 2005, Bialystok, Craik & Luk, 2012, for an overview)
- Specific architectures of the mind that are likely to promote later cognitive advantages (Cook, 2016: Bak & Mehmedbegovic-Smith, 2021)
- Acquisition and use of multiple languages facilitates creative functioning (Kharkhurin, 2012)

Multilingual factors influencing divergent thinking

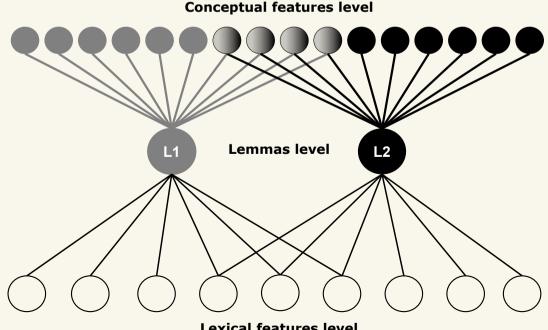
- Language proficiency
 - Balanced > Unbalanced (e.g., Kharkhurin, 2008, 2009, 2011; Lee & Kim, 2011)
- Age of language acquisition
 - Early > Late (e.g., Cushen & Wiley, 2011; Kharkhurin, 2008; Kostandyan & Ledovaya, 2013)

Cognitive mechanisms underlying multilingual creativity

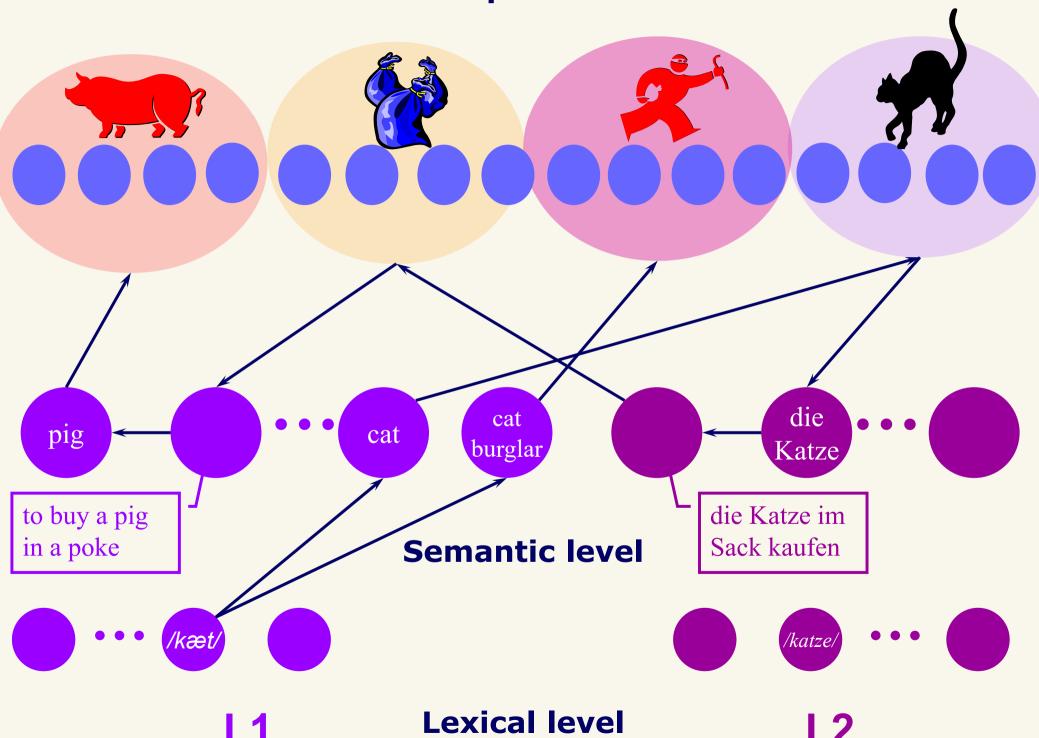
- Language Mediated Concept Activation (LMCA) (Kharkhurin, 2017)
 - Specific architecture of bilingual memory facilitates the greater spreading activation between conceptual representations and thereby stimulates an ability to activate a multitude of unrelated concepts (i.e., divergent thinking)

Language Mediated Concept Activation

- Translation equivalents automatically activate each other through shared conceptual representations (e.g., concept mediated translation in Kroll & de Groot. 1997)
- Although translation equivalents share most of the conceptual features, these representations are not identical (e.g., Paradis, 1997)
- Variations in the conceptual representations of translation equivalents may result in the simultaneous activation of additional concepts, which eventually may produce a large pattern of activation over unrelated concepts from different categories (Kharkhurin, 2017)



Conceptual level



14

Cognitive mechanisms underlying multilingual creativity

- Selective attention (Kharkhurin, 2011)
 - Attentional control is enhanced by bilingual practice (see the review in Sekerina, Spradlin & Valian, 2019; meta-analysis in Adesope et al., 2010)
 - It also supports creative problem-solving

Selective Attention

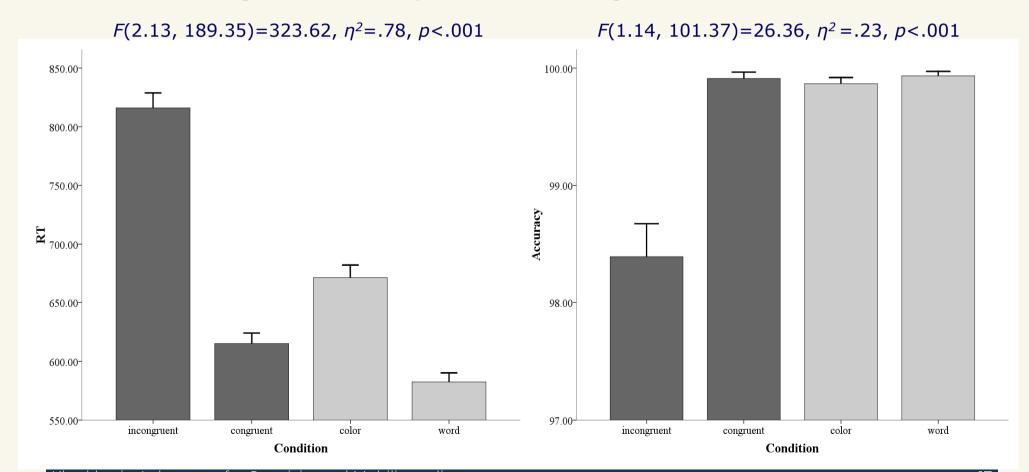
Stroop test (Stroop, 1935)

Rec Blue Green Yellow Bue Yellow Red Green Yellow Blue Green Red Yellow Green Blue Red Name the Color in Which Each Word is Printed

Selective Attention

Conditions

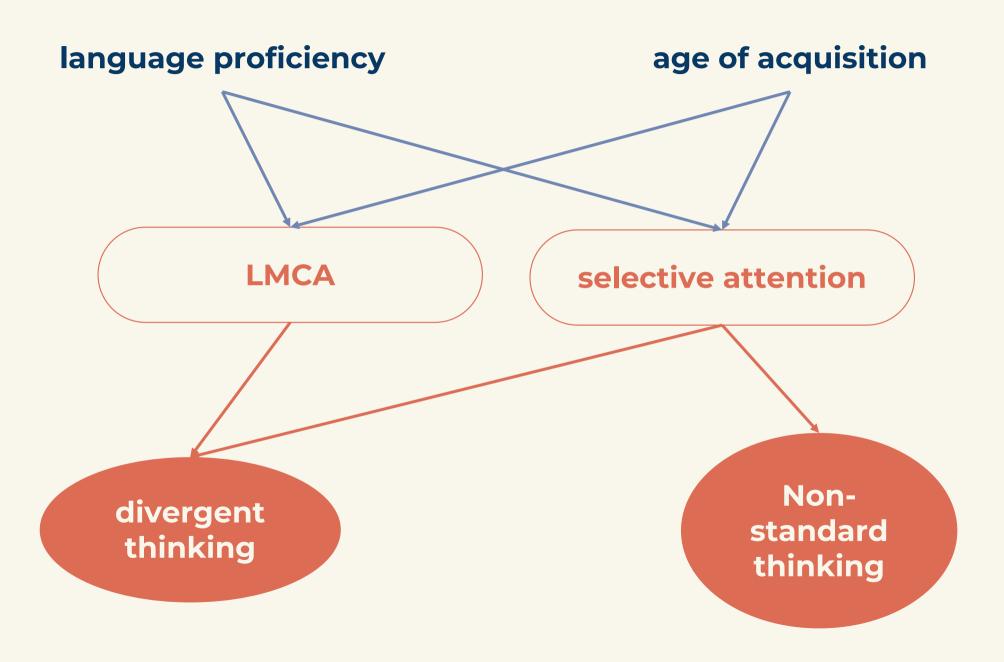
- Color-naming control
- Word-reading control
- Congruent color-naming
- Incongruent Stroop color-naming



Selective Attention

- Mechanisms (Bialystok, Craik, & Luk, 2008)
 - Facilitation
 - the rate of the facilitation associated with the word printed in its own color relative to the neutral color-naming condition when no word is present
 - Inhibition
 - the rate of inhibition associated with the word printed in another color relative to the neutral color-naming condition
- Selective attention (Kharkhurin, 2011)
 - Highly proficient bilinguals: inhibition mechanism
 - Inhibition → innovative capacity
 - Inhibition → non-standard thinking
 - Moderately proficient bilinguals: facilitation mechanism
 - Facilitation → generative capacity → non-standard thinking

Multilingual Creative Cognition



Towards a broader conceptualization

- **Bi-/multilingualism** (e.g., Cenoz, 2013; Herdina & Jessner, 2002; Hornberger, 2002)
- (Trans)languaging (Williams, 1996; García, 2009)
 - Welsh-English bilingual programs
 - Systematic and intentional alternation of input and output languages in bilingual instruction
 - 'language' as a social practice in which learners engage rather than a set of structures and functions that they learn
- (Linguistic) multi-competence (Cook & Wei, 2016)
 - Dynamic system theory: major transformation of the cognitive and linguistic system as a result of acquiring multiple languages (Larsen-Freeman & Todeva, 2021)
 - It is not seen as the sum of different linguistic competences but as a specific competence of a higher taxonomic order, which posits a systemic cognitive asset in speakers of multiple languages
- Plurilingualism (e.g., Coste, Moore, & Zarate, 1997/2009; Council of Europe, 2001, 2020; Lüdi & Py, 2009; Piccardo, 2013, 2018)
- Creativity
 - 4+2+1 Ps (Kharkhurin & Charkhabi, 2021; Rhodes, 1961; Runco, 2003; Simonton, 1990)
 - Systems Model of Creativity (Csikszentmihalyi, 2014)
 - 5A (Glăveanu, 2013)
 - 4in1 (Kharkhurin, 2014)
 - 7C (Lubart, 2017)

4+2+1P Approaches to Creativity

- Process
- Person
- Product
- Place/press (Rhodes 1961)
- Persuasion (Simonton, 1990)
- Potential (Runco, 2003)
- Perception (Kharkhurin, 2017)

Bi-/Multilingualism

- Monolingual native-speaker model (ein monolingualer Habitus, Gogolin, 1994, 2002)
- Additive approach

Plurilingualism

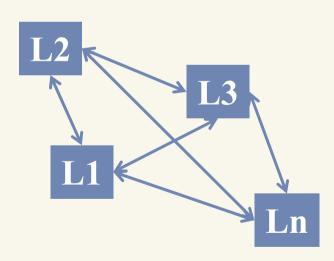
- The ability to interact, even imperfectly, in several languages in everyday setting (Council of Europe, 2001, 2020)
- Linguistic repertoires include unevenly developed, fluid, and constantly shifting competencies in a variety of languages, dialects, and registers (Cummins, 2021)
- It is a practice, something we do rather than something that precedes our activities (Lüdi, 2021)
- The knowledge of multiple languages as well as the understanding of different sociocultural and emotional contexts in which these languages were acquired contributes to improvement of an individual's communicative skills (Council of Europe, 2018)
- Plurilingual and pluricultural competence (Coste, Moore and Zarate, 1997/2009)
 - ... the concept of plurilingual and pluricultural competence [...] defended the (sociolinguistic) notion that [...] plurilingual individuals used two or more languages – separately or together – for different purposes, in different domains of life, with different people, and because their needs and uses of several languages in everyday life could be very different

Multi- vs. Pluri-lingualism

Multi-

Pluri-

$$L1 \rightarrow L2 \rightarrow L3 \longrightarrow Ln$$



Plurilingual Creativity

Kharkhurin (2021)

Sociocultural Experience

Acculturation studies

 Language acquisition is often accompanied by the adoption of the cultural values of the country in which this language is acquired (e.g., Birman, Trickett, & Vinokurov, 2002)

Creativity research

 Sociocultural values and norms determine and shape the concept of creativity, which in turn may influence the way creative potential is understood and developed (e.g., Lubart, 1999)

Cross-cultural research

- the effect of multilingualism on creative performance is often confounded with the effect of multiculturalism (e.g., Kharkhurin, 2010; Leung, Maddux, Galinsky, & Chiu, 2008)
- variations in the manners of socialization, degrees of self-perception and self-expression, education, and social conduct may modulate the differences in creative performance of the representatives of different cultures (e.g., Kharkhurin & Samadpour Motalleebi, 2008; Niu & Sternberg, 2001; Zha, Walczyk, Griffith-Ross, Tobacyk, & Walczyk, 2006)
- Individuals' experience with multiple sociocultural settings may encourage their creative behavior

Emotional Experience

- Emotions can either help or hurt creative endeavors (e.g., Montgomery, Hodges, & Kaufman, 2004; Russ, 1999)
- Emotions are realized differently in multilinguals' languages (see Dewaele, 2016; Pavlenko, 2012, for an overview)
- Experience of different emotions in different linguistic contexts can lead to a variation in creative behavior (Kharkhurin & Altarriba, 2016)

Intercultural Competence

- Co-orientational model of global competence (Gudykunst, Matsumoto, Ting-Toomey, Nishida, & Karimi, 1994; Pusch, 1994)
- Intercultural competence is determined by the presence of cognitive, behavioral, and affective abilities
- Personal attributes
 - Flexibility
 - the ability to change cognitive structures and behaviors (cf. accommodation vs. assimilation in Piaget, 1936/1952)
 - Cross-cultural empathy
 - the ability to connect emotionally with representatives of other cultures)
 - Tolerance for ambiguity
 - · the ability to maintain a relaxed attitude toward an unclear situation)
 - Mindfulness
 - openness to the variations in the communication flow determined by differences in people's cultural perspectives)

Contribution of intercultural competence to creative personality traits

Cognitive flexibility

- This trait allows an individual to find different perspectives, to switch between perspectives, and to think outside the box
- Bilingual > monolinguals → flexibility (e.g., Carringer, 1974; Kharkhurin, 2008; Konaka, 1997)
- Code-switching contributes to flexibility in thinking (Kharkhurin & Wei, 2014)

Tolerance of ambiguity

- "Tendency to perceive ambiguous situations as desirable" (Budner, 1962, p. 29)
- 3+ languages > 1-2 languages → tolerance for ambiguity (Dewaele & Wei, 2013)

Open-mindedness

- Openness to different sociocultural constructs
- Open and unprejudiced attitude towards outgroup members and towards different cultural norms and values
- Openness to new ideas and experiences (e.g., Feist, 1998; Silvia, Nusbaum, Berg, Martin, & O'Connor, 2009)
- Advanced knowledge and frequent use of more languages was linked to open-mindedness (Dewaele & Stavans, 2012; Dewaele & van Oudenhoven, 2009)

Other factors underlying plurilingual creativity

Preference for complexity

- Creative perception predicts creative behavior (Kharkhurin, 2017;
 Kharkhurin & Yagolkovskiy, 2019, Kharkhurin & Charkhabi, 2021)
 - · Creative perception of the environment = preference for complexity
- Plurilingual individuals live in complex linguistic and sociocultural systems
- Plurilingual practice enhances preference for complexity

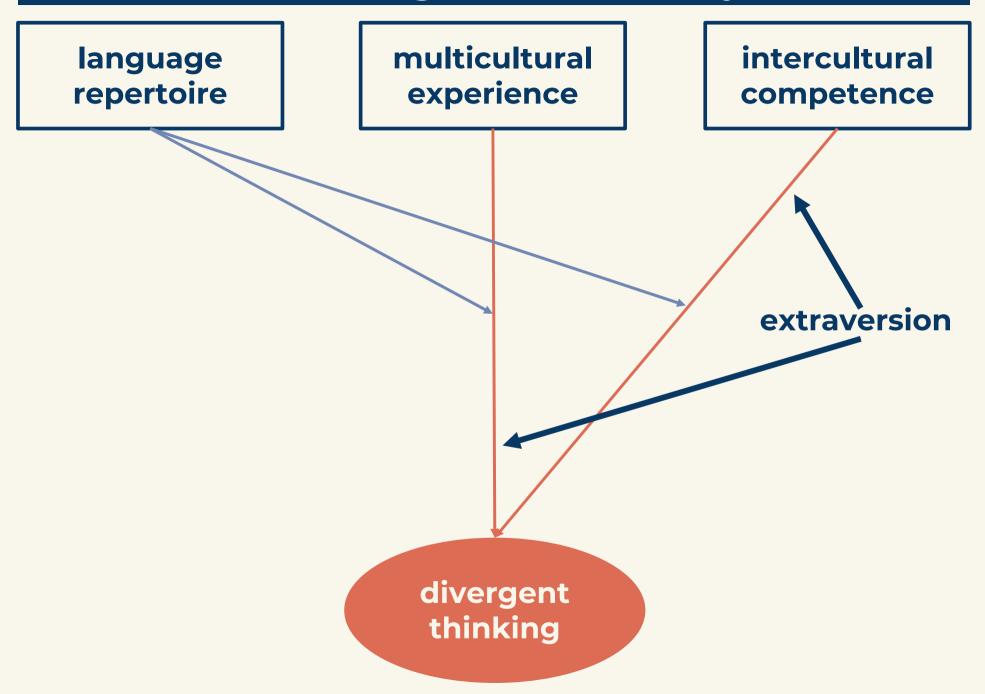
Motivation

- Creativity generally prospers under conditions that support intrinsic motivation (stimulated by personal interest and inner potential) and suffocates under conditions accentuating the extrinsic motivation (such as rewards and incentives)
- Motivation plays a pervasive role in language learning

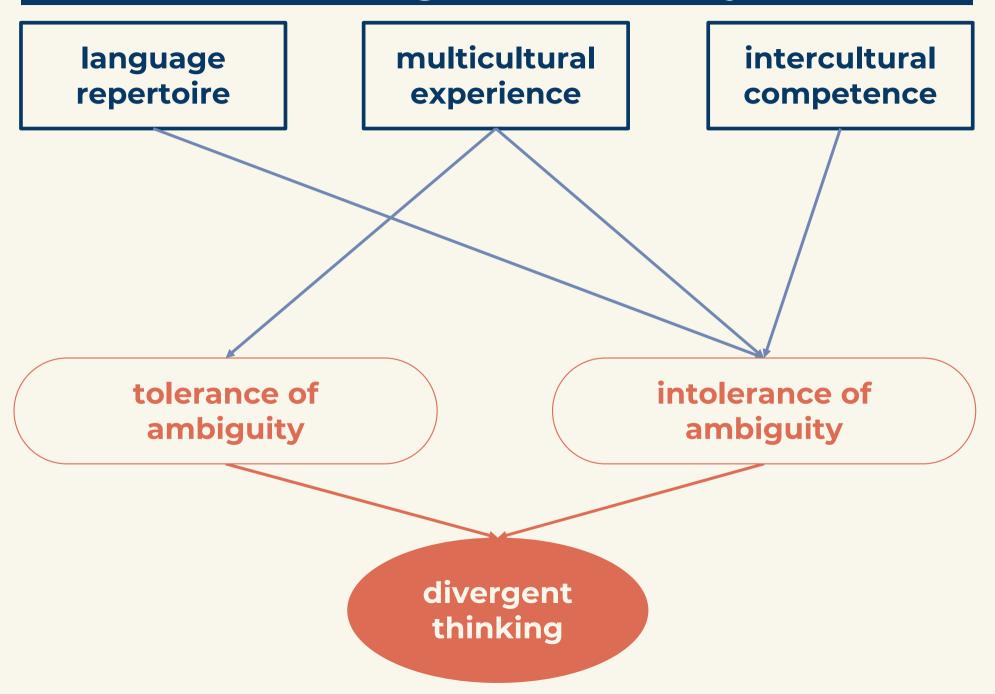
Plurilingual Creativity

intercultural multicultural language repertoire experience competence divergent thinking

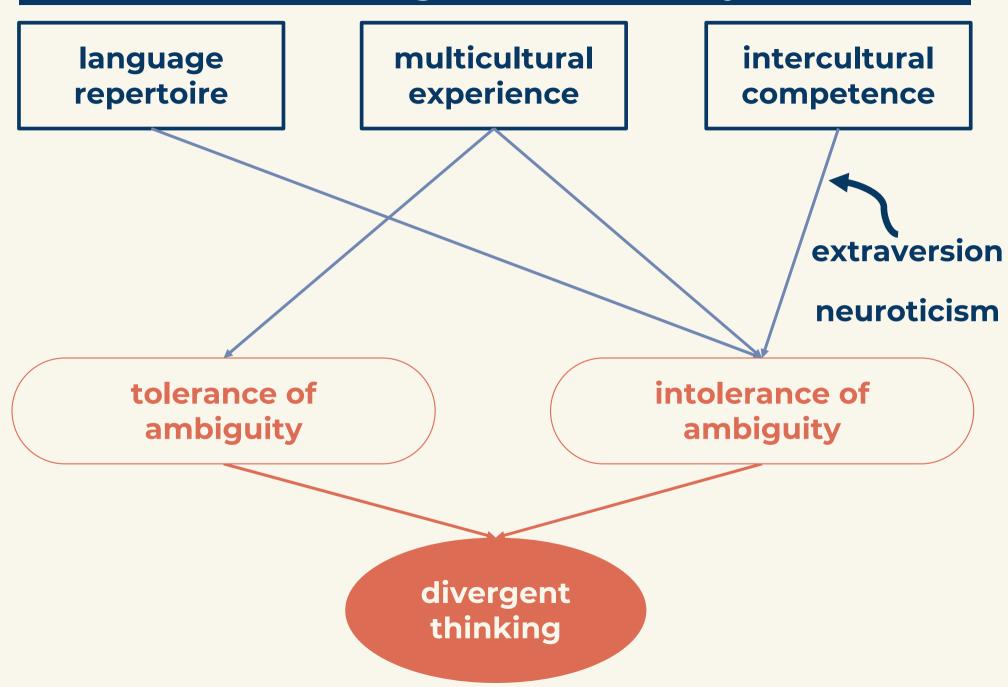
Plurilingual Creativity



Plurilingual Creativity



Plurilingual Creativity



Plurilingual Creative Education

Kharkhurin & Pasechnik (2020)

Plurilingual Creative Education

- Two types of educational programs
 - ones fostering foreign language learning
 - ones intended to facilitate students' creative capacities
- Neglect of the importance of nurturing intercultural competence
- A relationship between linguistic, cultural, and creative competencies
- Greater synergy
 - This program would capitalize on the assets of both forms of education to establish an effective and comprehensive curriculum

Education

MONO.edu

- Additive approach
- Monolingual approach to multilingual education
- Linguistic appropriateness
- Raciolinguistic ideologies
- Prescriptive standardized ideologies
- Marginalized non-standard linguistic practices of plurilingual students

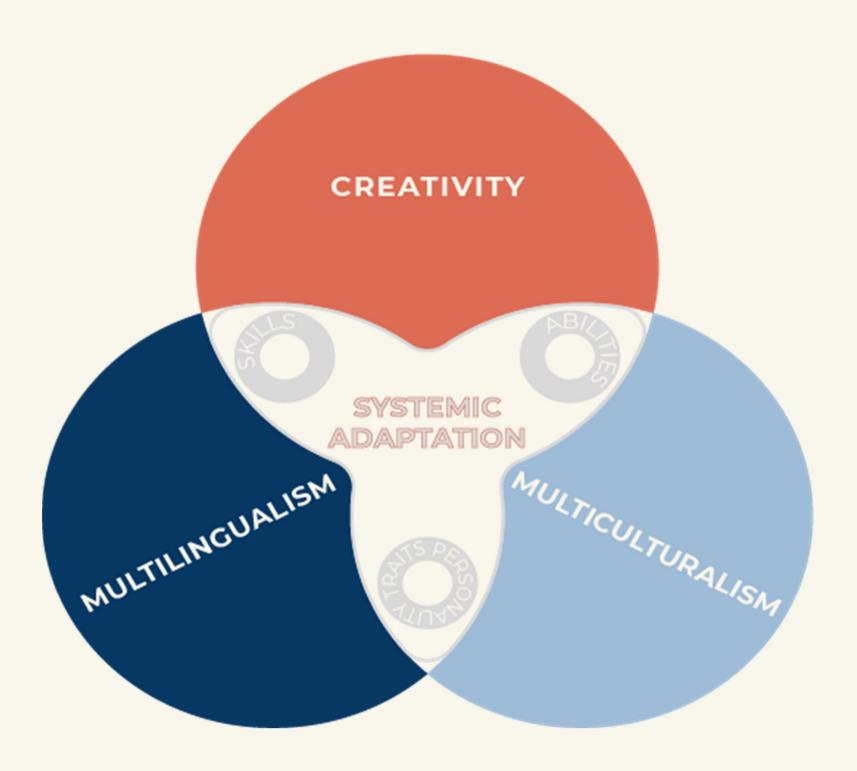
PLURI.edu

Introduced by the Council of Europe in 1996

- Founding principles
 - the acceptance of cultural diversity
 - the right to use one's mother tongue as a form of communication
 - the right to gain experience and knowledge of another language
 - the acceptance that language is the core of human dialogue
- Guiding principle
 - plurilingual repertoires to be developed through education can be diverse
 - languages that are the components of plurilingual competence do not all have to be learned to the same level
 - language education takes place throughout life and not exclusively during school years



Plurilingual Intercultural Creative Keys (PICK)



PERSONALITY TRAITS



SYSTEMIC ADAPTATION









CREATIVE POTENTIAL ACTIVIVATION



FOREIGN

LANGUAGES

LEARNING



LANGUAGE SKILLS



COMMUNICATION SKILLS



CREATIVE PERCEPTION



GOAL-SETTING SKILLS



CULTURAL **AWARENESS**



SELECTIVE ATTENTION AND COGNITVE FLEXIBILITY







ASSERTIVENESS



EMOTIONAL INTELLIGENCE



CURIOSITY



INTERCULTURAL COMPETENCE **FORMATION**



PICK training for teachers (3 modules)

Creativity creates the creator

The world is open to everyone

New language - New life

Fostering creative potential

- Knowledge base formation about creativity
 - The phenomenon of creativity
 - How to develop creative potential?
- Acquisition of skills developing students' creativity
 - Approbation of creativity fostering methods and techniques
 - Application of them in the educational setting
- Actualization of personality traits necessary to develop students' creativity

Developing Intercultural competence

- Knowledge base formation about intercultural competence
 - The phenomenon of intercultural competence
 - How to form intercultural competence?
- Acquisition of skills developing intercultural competence
 - Cultural awareness
 - Communication skills
 - o Emotional intelligence
- Actualization of personality traits necessary to develop students' intercultural competence

Stimulating foreign language learning

- Knowledge base formation about plurilingualism
 - The phenomenon of plurilingualism versus the bi-/multilingual approach
 - How to stimulate foreign language learning in the context of intercultural communication?
- Acquisition of skills developing plurilingualism
 - Code Switching and interlanguage games
- Actualization of personality traits necessary to stimulate students' foreign language learning

PICK lectures and workshops for teachers (3 blocks)

Where is their button

Developing intrinsic motivation for learning activities and maintaining curiosity

Lectures

- The role of intrinsic motivation
- How to maintain curiosity
- The personal significance of the schooling material
- Concentration of selective attention
- Competitive team environment
- Positive adult role model
- Independent thinking

Workshops

- Directed visualization in the classroom
- Game techniques to maintain motivation
- Dialogue and team problem solving
- Storytelling
- Tolerance of deviant behavior
- Self- and peer-assessment by students in learning

Comfort zone

Creating a favorable psychological climate in the educational community

Lectures

- The role of psychological climate
- How to maintain a favorable psychological climate
- Stress and how to overcome it
- Ergonomics and aesthetics of the educational space
- Person centered approach

Workshops

- Body and meditative practices in the classroom
- Using aromatherapy to optimize learning activities
- Using music therapy to optimize learning activities
- Practice of person-centered interaction between a teacher and a student

Simply about complex

Developing critical thinking and the ability to implement project activities

Lectures

- The concept of critical thinking
- How to develop critical thinking of schoolchildren
- Technology of critical thinking development
- Project as a wat to actualize critical thinking

Workshops

- Critical thinking development techniques
- Techniques to optimize students' project activities

- Adesope, O. O., Lavin, T., Thompson, T., & Ungerleider, C. (2010). A Systematic Review and Meta-Analysis of the Cognitive Correlates of Bilingualism. *Review of Educational Research*, 80(2), 207-245. doi: 10.3102/0034654310368803
- Bak, T. & Mehmedbegovic-Smith, D. (2021). The Cognitive and Psychological Dimensions of Plurilingualism. In E. Piccardo, A. Germain-Rutherford & G. Lawrence (Eds.), *Routledge Handbook of Plurilingual Language Education*: Routledge
- Barac, R., Bialystok, E., Castro, D. C., & Sanchez, M. (2014). The cognitive development of young dual language learners: A critical review. Early Childhood Research Quarterly, 29, 699–714
- Bialystok, E. (2005). Consequences of bilingualism for cognitive development. In J. F. Kroll & A. M. B. de Groot (Eds.), *Handbook of bilingualism: Psycholinguistic approaches* (pp. 417-432). New York: Oxford University Press.
- Bialystok, E., Craik, F. I. M., & Luk, G. (2008). Cognitive control and lexical access in younger and older bilinguals. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 34*(4), 859–873.
- Bialystok, E, Craik, F. I. & Luk, G. (2012). Bilingualism. Consequences for mind and brain. Trends in Cognitive Sciences 16 (4), 240–250.
- Budner, S. (1962). Intolerance of ambiguity as a personality variable. *Journal of Personality*, 30(1), 29-50. doi: 10.1111/j.1467-6494.1962.tb02303.x
- Carringer, D. C. (1974). Creative thinking abilities of Mexican youth: The relationship of bilingualism. *Journal of Cross-Cultural Psychology*, 5(4), 492-504.
- Cenoz, J. (2013). Defining Multilingualism. Annual Review of Applied Linguistics, 33, 3-18. doi: 10.1017/S026719051300007X
- Cook, V. (2016). Premises of multi-competence. In V. Cook & L. Wei (Eds.), *The Cambridge Handbook of Linguistic Multi-Competence* (pp. 1-25). Cambridge: Cambridge University Press.
- Cook, V., & Wei, L. (Eds.). (2016). Cambridge Handbook of Linguistic Multicompetence. Cambridge, UK: Cambridge University Press.
- Coste, D., Moore, D., and Zarate, G. 1997 (English version 2009). Compétence Plurilingue et Pluriculturelle. Vers un Cadre Européen Commun de référence pour l'enseignement et l'apprentissage des Langues Vivantes. Études Préparatoires. Strasbourg: Éditions du Conseil de l'Europe.
- Council of Europe (2001). Common European Framework of Reference for Languages: Learning, Teaching, Assessment. Cambridge: Cambridge University Press.
- Council of Europe (2018). CEFR. Companion volume with new descriptors. https://rm.coe.int/cefr-companion-volume-with-new-descriptors-2018/1680787989
- Council of Europe (2020). Common European Framework of Reference for languages: learning, teaching, assessment. Companion volume with new descriptors. Strasbourg, France: Council of Europe. https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16809ea0d4
- Csikszentmihalyi, M. (2014). The Systems Model of Creativity and Its Applications. In D. K. Simonton (Ed.), *The Wiley Handbook of Genius* (pp. 533-545): John Wiley & Sons, Ltd.
- Cummins, J. (2021). Teachers as knowledge-generators and agents of language policy: Research, theory, and ideology in plurilingual pedagogies. In E. Piccardo, A. Germain-Rutherford & G. Lawrence (Eds.), *Routledge Handbook of Plurilingual Language Education*: Routledge
- Cushen, P. J., & Wiley, J. (2011). Aha! Voila! Eureka! Bilingualism and insightful problem solving. *Learning and Individual Differences*, 21(4), 458-462.
- Dewaele, J.-M. (2016). Multi-competence and emotion. In V. Cook & W. Li (Eds.), *The Cambridge handbook of linguistic multi-competence* (pp. 461-477). Cambridge, UK: Cambridge University Press.
- Dewaele, J.-M., & Stavans, A. (2012). The effect of immigration, acculturation and multicompetence on personality profiles of Israeli multilinguals. *International Journal of Bilingualism*. doi: 10.1177/1367006912439941

- Dewaele, J.-M., & van Oudenhoven, J. P. (2009). The effect of multilingualism/multiculturalism on personality: no gain without pain for Third Culture Kids? *International Journal of Multilingualism*, 6(4), 443-459. doi: 10.1080/14790710903039906
- Dewaele, J.-M., & Wei, L. (2013). Is multilingualism linked to a higher tolerance of ambiguity? *Bilingualism: Language and Cognition, 16*(1), 231-240. doi: 10.1017/S1366728912000570
- Feist, G. J. (1998). A meta-analysis of personality in scientific and artistic creativity. *Personality and Social Psychology Review, 2*(4), 290-309.
- García, O. (2009). Bilingual education in the 21st century. A global perspective. Boston: Basil Blackwell.
- Glăveanu, V. P. (2013). Rewriting the Language of Creativity: The Five A's Framework. *Review of General Psychology, 17*(1), 69-81. doi: 10.1037/a0029528
- Gogolin, I. (1994). Der monolinguale Habitus der multilingualen Schule. Münster: Waxmann.
- Gogolin, I. (2002). Linguistic and cultural diversity in Europe: A challenge for educational research and practice. *European Educational Research Journal*, 1(1), 123-138.
- Gudykunst, W., Matsumoto, Y., Ting-Toomey, S., Nishida, T., & Karimi, H. (1994). *Measuring self construals across cultures: A derived etic analysis*. Paper presented at the International Communication Association Convention in Sydney, Australia, July.
- Guilford, J. P. (1967). The nature of human intelligence. New York: McGraw-Hill.
- Herdina, P., & Jessner, U. (2002). A Dynamic Model of Multilingualism: Perspectives of Change in Psycholinguistics. Clevedon, UK: Multilingual Matters.
- Hornberger, N. H. (2002). Multilingual language policies and the continua of biliteracy: An ecological approach. *Language policy*, 1(1), 27-51.
- Kharkhurin, A. V. (2008). The effect of linguistic proficiency, age of second language acquisition, and length of exposure to a new cultural environment on bilinguals' divergent thinking. *Bilingualism: Language and Cognition, 11,* 225-243.
- Kharkhurin, A. V. (2009). The role of bilingualism in creative performance on divergent thinking and Invented Alien Creatures tests. *Journal of Creative Behavior*, 43, 59-71.
- Kharkhurin, A. V. (2010). Sociocultural differences in the relationship between bilingualism and creative potential. *Journal of Cross-Cultural Psychology*, 41, 776-783. doi: 10.1177/0022022110361777
- Kharkhurin, A. V. (2011). The role of selective attention in bilingual creativity. Creativity Research Journal, 23, 239-254.
- Kharkhurin, A. V. (2012). Multilingualism and Creativity. Bristol, UK: Multilingual Matters.
- Kharkhurin, A. V. (2014). Creativity.4inl: Four-criterion construct of creativity. *Creativity Research Journal*, 26(3), 338-352. DOI: 10.1080/10400419.2014.929424
- Kharkhurin, A. V. (2015). Multilingual creative cognition: Theory and practice. In R. Jones (Ed.), *Routledge Handbook of Language and Creativity* (pp. 452-466). London, UK: Routledge.
- Kharkhurin, A. V. (2016). Multi-competence as a creative act: Ramifications of multi-competence paradigm for creativity research and creativity fostering education. In V. Cook & W. Li (Eds.). *Cambridge Handbook of Linguistic Multi-competence* (pp. 420-444). Cambridge, UK: Cambridge University Press. doi: 10.1017/CBO9781107425965.020
- Kharkhurin, A. V. (2017). Does the eye of the beholder construct beauty? Contributions of self-efficacy factors to divergent thinking traits. *Creativity Research Journal*, 29(4), 370-376. DOI: 10.1080/10400419.2017.1376493
- Kharkhurin, A. V. (2017). Language mediated concept activation in bilingual memory facilitates cognitive flexibility. *Frontiers in Psychology*, 8, 1-16. DOI: 10.3389/fpsyq.2017.01067
- Kharkhurin, A. V. (2018). Bilingualism and creativity. In J. Altarriba & R. R. Heredia (Eds.), *An introduction to bilingualism: Principles and processes* (2nd ed., pp. 159-189). New York, NY: Psychology Press.

- Kharkhurin, A. V. (2021). Plurilingual twist to Multilingual Creative Cognition. In E. Piccardo, A. Germain-Rutherford & G. Lawrence (Eds.), Routledge Handbook of Plurilingual Language Education: Routledge
- Kharkhurin, A. V. & Altarriba, J. (2016). The effect of mood induction and language of testing on bilingual creativity. *Bilingualism:* Language and Cognition, 19(5), 1079-1094. doi: 10.1017/S1366728915000528
- Kharkhurin, A. V. & Charkhabi, M. (2021). Preference for complexity and asymmetry contributes to an ability to overcome structured imagination: Implications for Creative Perception Paradigm. *Symmetry 13*(2), 343. DOI: 10.3390/sym13020343
- Kharkhurin, A. V., & Li Wei (2014). The role of code-switching in bilingual creativity. *International Journal of Bilingual Education and Bilingualism*, 1-17. doi: 10.1080/13670050.2014.884211
- Kharkhurin, A.V. & Pasechnik, A. (2020). Plurilingual Intercultural Creative Keys: Updated Educational Program. *Psychology and Psychotherapy Research Study*, 4(3). DOI: 10.31031/PPRS.2020.04.000586
- Kharkhurin, A. V., & Samadpour Motalleebi, S. N. (2008). The impact of culture on the creative potential of American, Russian, and Iranian college students. *Creativity Research Journal*, 20(4), 404-411.
- Kharkhurin, A. V., & Yagolkovskiy, S. R. (2019). Preference for complexity and asymmetry contributes to elaboration in divergent thinking. *Creativity Research Journal*, 31(3), 342-348, DOI: 10.1080/10400419.2019.1641687
- Konaka, K. (1997). The relationship between degree of bilingualism and gender to divergent thinking ability among native Japanese-speaking children in the New York area. (58 dissertation), New York University. Univ Microfilms International database. (1)
- Kostandyan, M. E., & Ledovaya, Y. A. (2013). How the age of language acquisition relates to creativity. *Procedia Social and Behavioral Sciences*, 86(0), 140-145. doi: 10.1016/j.sbspro.2013.08.539
- Kroll, J. F., & de Groot, A. M. B. (1997). Lexical and conceptual memory in the bilingual: Mapping form to meaning in two languages. In A. M. B. de Groot & J. F. Kroll (Eds.), *Tutorials in bilingualism: Psycholinguistic perspectives* (pp. 169-199). Hillsdale, NJ: Erlbaum.
- Lee, H., & Kim, K. H. (2011). Can speaking more languages enhance your creativity? Relationship between bilingualism and creative potential among Korean American students with multicultural link. *Personality and Individual Differences*, 50(8), 1186-1190.
- Lubart, T. I. (1999). Creativity across cultures. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 339-350). New York, NY: Cambridge University Press.
- Lubart, T.I. (2017). The 7 C's of Creativity. The Journal of Creative Behavior, 51(4), 293-296. doi:https://doi.org/10.1002/jocb.190.
- Leung, A. K.-y., Maddux, W. W., Galinsky, A. D., & Chiu, C.-y. (2008). Multicultural experience enhances creativity: The when and how. *American Psychologist*, 63(3), 169-181.
- Lüdi, G. (2021). Promoting plurilingualism and plurilingual education: A European perspective. In E. Piccardo, A. Germain-Rutherford & G. Lawrence (Eds.), *Routledge Handbook of Plurilingual Language Education*: Routledge
- Lüdi, G., & Py, B. (2009). To be or not to be ... a plurilingual speaker. *International Journal of Multilingualism*, 6(2), 154-167. doi: 10.1080/14790710902846715
- Montgomery, D., Hodges, P. A., & Kaufman, J. S. (2004). An exploratory study of the relationship between mood states and creativity self-perceptions. *Creativity Research Journal*, 16(2-3), 341-344. doi: 10.1207/s15326934crj1602&3_15
- Niu, W., & Sternberg, R. J. (2001). Cultural influences on artistic creativity and its evaluation. *International Journal of Psychology*, 36(4), 225-241.
- Pavlenko, A. (2012). Multilingualism and emotions. In M. Martin-Jones, A. Blackledge & A. Creese (Eds.), *The Routledge handbook of multilingualism* (pp. 466-481). London, UK: Routledge.
- Paradis, M. (1997). The cognitive neuropsychology of bilingualism. In A. M. B. de Groot & J. F. Kroll (Eds.), *Tutorials in bilingualism: Psycholinguistic perspectives* (pp. 331-354). Hillsdale, NJ: Erlbaum.

- Piaget, J. (1936/1952). The origins of intelligence in children. New York, NY: International University Press.
- Piccardo, E. (2013). Plurilingualism and curriculum design: Towards a synergic vision. TESOL Quarterly, 47(3), 600-614.
- Piccardo, E. (2018). Plurilingualism: Vision, Conceptualization, and Practices. In P. P. Trifonas & T. Aravossitas (Eds.), *Handbook of Research and Practice in Heritage Language Education* (pp. 1-19). Cham: Springer International Publishing.
- Piccardo, E., Germain-Rutherford, A., & Lawrence, G. (Eds.). (2021). Routledge Handbook of Plurilingual Language Education: Routledge.
- Pusch, M. (1994). The chameleon capacity. In R. D. Lambert (Ed.), *Educational exchange and global competence* (pp. 205-210). New York, NY: Council on International Educational Exchange.
- Rhodes, M. (1961). An Analysis of Creativity. The Phi Delta Kappan, 42(7), 305-310.
- Runco, M. A. (2003). Education for Creative Potential. *Scandinavian Journal of Educational Research*, 47(3), 318-324. doi: 10.1080/00313830308598
- Russ, S. W. (1999). Affect, creative experience, and psychological adjustment. Philadelphia: Brunner, Mazel.
- Sekerina, I.A., Spradlin, L., & Valian, V. (Eds.) (2019). *Bilingualism, executive function, and beyond. Questions and insights.* Amsterdam: Benjamins.
- Silvia, P. J., Nusbaum, E. C., Berg, C., Martin, C., & O'Connor, A. (2009). Openness to experience, plasticity, and creativity: Exploring lower-order, high-order, and interactive effects. *Journal of Research in Personality*, 43(6), 1087-1090.
- Simonton, D. K. (1990). History, chemistry, psychology, and genius: An intellectual autobiography of historiometry. In M. A. Runco & R. S. Albert (Eds.), *Theories of creativity* (pp. 92-115). Thousand Oaks, CA: Sage Publications, Inc.
- Starko, A. J. (2010). Creativity in the classroom: Schools of curious delight (4th ed.). New York, NY: Routledge.
- Stroop, J. R. (1935). Studies of interference in serial verbal reactions. Journal of Experimental Psychology, 18(6), 643-662.
- van Dijk, M., Kroesbergen, E. H., Blom, E., & Leseman, P. P. M. (2019). Bilingualism and Creativity: Towards a Situated Cognition Approach. *The Journal of Creative Behavior, 53*(2), 178-188. doi: 10.1002/jocb.238
- Williams, C. (1996). Secondary education: Teaching in the bilingual situation. In C. Williams, G. Lewis, & C. Baker (Eds.). *The language policy: Taking stock* (pp. 39–78). Llangefni, UK: CAI.
- Ward, T. B., Smith, S. M., & Finke, R. A. (1999). Creative cognition. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 189-212). New York: Cambridge University Press.
- Zha, P., Walczyk, J. J., Griffith-Ross, D. A., Tobacyk, J. J., & Walczyk, D. F. (2006). The Impact of Culture and Individualism-Collectivism on the Creative Potential and Achievement of American and Chinese Adults. *Creativity Research Journal*, 18(3), 355-366.



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■ Остановить демонстрацию









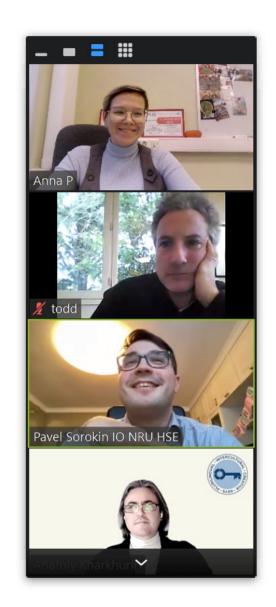


Plurilingual Creativity at work:
Theoretical and empirical arguments
for expanding framework for
research in the consequences of
acquisition and use of multiple
languages for creative behavior
Anatoliy V. Kharkhurin, Ph.D.

HSE University (Russia)

Вы запустили демонстрацию экрана

Discussant: **Todd I. Lubart, Ph.D.** (Université de Paris)



Anatoly Kharkhurir

Creative Cognition

- An ability to initiate multiple cycles of divergent and convergent thinking (Guilford, 1967)
 - Convergent thinking

- Extracting creative ideas from the pool of those generated during divergent thinking
- Divergent thinking
 - · Generation of a multitude of often unrelated ideas
 - Abbreviated Torrance Test for Adults (ATTA, Goff & Torrance, 2002)
 - **Properties**
 - Fluency (the ability to rapidly produce a large number of ideas or solutions to a problem)
 - Flexibility (the capacity to consider a variety of approaches to a problem simultaneously)
 - Elaboration (the ability to think through the details of an idea and operationalize it)
 - Originality (the tendency to produce ideas different from those of most other people)
- This creates an active, attention-demanding process that allows generation of new, alternative solutions characterized by
 - novelty (original or unexpected)
 - utility (useful or meeting task constraints)
- Everyone has creative ability, but it's realized differently in different individuals (Ward, Smith, & Finke, 1999)

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